

Appl. No. 10/776,851
Docket No. CM2687MQ
Amdt. dated July 18, 2006
Reply to Office Action mailed on May 25, 2006
Customer No. 27752

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REMARKS

Claim Status

Claims 1 - 12 are pending in the present application. No additional claims fee is believed to be due.

Rejection Under 35 USC §103(a)

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine the reference teachings. *In re Fritch*, 972 F.2d 1260 (Fed. Cir. 1992); MPEP § 2143.01. Second, there must be a reasonable expectation of success. *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991); MPEP § 2143.02. Third, the prior art reference or combined references must teach or suggest all the claim limitations. *In re Royka*, 490 F.2d 981 (CCPA 1974); MPEP §2143.03. Furthermore, in establishing a *prima facie* case of obviousness, case law clearly places the "burden of proof on the Patent Office which requires it to produce the factual basis for its rejection of an application under sections 102 and 103." *In re Warner*, 379 F.2d 1011, 1016 (CCPA 1967).

Claims 1-12 are rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,425,725 to Tanzer et al. (herein after referred to as "Tanzer"). Regarding claim 1, the Office concedes that "Tanzer et al. do not expressly disclose the specific degree of wet immobilization." The Office supports the rejection on the theory of optimization of ranges. The Office states:

Generally, differences in test characteristics will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such test characteristic is critical. "[Where] general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation" *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

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A particular parameter must first be recognized as a result-effective variable, i.e. a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation. *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977). Regarding claims 1-12, the benefits of immobilizing the inner materials of a diaper when soaked with urine would have been known prior to applying a test (e.g., preventing the absorbent materials from bunching up excessively in discrete areas of the diaper causing discomfort to a wearer, or aesthetic considerations), making these values result-effective variables. One of ordinary skill in the art would have recognized that increasing the wet immobilization properties of the absorbent material in a diaper or similar article would increase its resistance to moving around between top and back sheets and would prevent the absorbent from bunching up uncomfortably. MPEP § 2144.04.

Applicant traverses the rejection.

Applicant wishes to present a brief overview of the relevant teachings of Tanzer. The overview is substantially the same as the one presented in the previous response submitted on March 7, 2006. Tanzer teaches an absorbent laminate (112) including a first carrier layer (98) and at least a second carrier layer (100). Col. 3, lines 52-54. Tanzer teaches a carrier attaching means (such as an adhesive (102)) that secures together the carrier layers (98, 100) to provide attached zones (104) and unattached zones (106). Col. 3, lines 54-58. The unattached zones (106) provide a plurality of pocket regions (108) which contain a high-absorbency material, such as particles of superabsorbent material (110). Col. 3, lines 58-62.

Tanzer further teaches:

[T]he wet-strength of the attachment system [*i.e.*, adhesive (102)] is configured to be sufficiently low so as to not excessively constrict the swelling expansion of the high absorbency material during the absorption of liquid. The wet-strength of the attachment system is less than the separating force imparted by the swelling of the high absorbency material when the high absorbency material is exposed to aqueous liquids, such as urine.

Col. 14, lines 43-51. In several other passages, Tanzer states that the attachment system releases at an applied load which is less than the load needed to burst or tear either carrier layers. *See* col. 14, lines 57-61 ("In addition, the water-sensitive attachment system is

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configured to release at an applied load which is less than the load needed to delaminate the water-sensitive attaching means without excessively tearing the material forming either or both of the carrier layers when such layers are wetted.”); col. 16, lines 29-34 (“ In the various aspects of the invention, carrier layers 98 and 100 can be configured with sufficient wet-strength to withstand the pressure generated by the expanding high-absorbency material 110 prior to the substantial release of the wet securement between the carrier layers.”); and col. 17, lines 57-62 (“ In the various configurations of the invention, the water-sensitive attaching means and the strengths of the carrier layers 98 and 100 can be selectively configured to permit the expansion of the wetted high absorbency material in an arrangement that substantially avoids a bursting of at least one of the carrier layers.”).

In other words, Tanzer teaches an attachment system having a low wet-strength that separates. The superabsorbent material (110), once wetted, swells thereby exerting a separation force on the carrier layers (98, 100). The attachment system (adhesive 102) exhibits a wet strength that is less than the separating force imparted by the swelling of the high absorbency material when the high absorbency material is exposed to aqueous liquids, such as urine. *See* Col. 14, lines 43-51. Therefore, the attachment system (adhesive 102) releases with the separation force exerted by the high absorbency material (110). When the attachment system releases, the pockets (108) may open thereby releasing the high absorbency material (110).

Within the Office Action, the Office has reproduced the following Figure 7 from Tanzer. While not explicitly described as such, the figure appears to show the absorbent laminate (112) in a dry, unswollen state. If the laminate (112) were in a wet swollen state, the teachings of Tanzer suggest that one or more of the discrete pockets (108) will have opened thereby allowing the high absorbency material (110) to migrate, which is completely contrary to immobilization.

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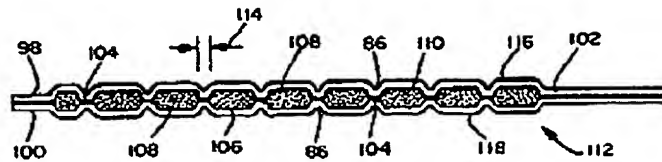


FIG. 7

In light of the overview of Tanzer as provided above, Applicant asserts that Tanzer does not teach or suggest Applicant's claimed invention. Furthermore, Applicant asserts that Tanzer may not be modified to yield Applicant's claimed invention.

The Office supports the current rejection based on a theory of optimization of ranges. However, the Office's reliance on "optimization of ranges" is misplaced and clouds the ultimate legal issue of obviousness. The Court of Customs and Patent Appeals has stated, "The problem, however, with such 'rules of patentability' (and the ever-lengthening list of exceptions which they engender) is that they tend to becloud the ultimate legal issue--obviousness--and exalt the formal exercise of squeezing new factual situations into preestablished pigeonholes." *In re Yates*, 663 F.2d 1054, 1056, 211 U.S.P.Q.2d 1149, 1151 n.4 (C.C.P.A. 1981). While the Office may perceive "optimization of ranges" as a *per se* basis for an obviousness determination, "optimization of ranges" is merely an attempt to squeeze the facts of the present application into a preestablished pigeonhole rather than conduct a thorough obviousness determination. As follows are several reasons supporting Applicant's assertion that the present invention is patentably distinct over Tanzer.

The Office recites case law in support of rule that a parameter must first be recognized as a result-effective variable before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation. *See In re Antonie*, 559 F.2d 618, 195 U.S.P.Q. 6 (C.C.P.A. 1977). Applicant asserts that reliance on *In re Aller* is in error. Applicant asserts that the Office has failed to adequately recognize whether "wet immobilization" is a results-effective variable. Additionally, Applicant asserts

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that, even if “wet immobilization” is a results-effective variable, the teachings of Tanzer prevent modification to yield the Office’s proposed results.

First, Applicant asserts that the Office’s reliance on optimization of ranges as supported by *In re Aller* is in error. *Aller* states, “[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.” *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). However, Tanzer does not disclose the general conditions of Applicant’s claim. To evaluate the “general conditions” of a claim, the Office must first construe the claim correctly. The claimed “wet immobilization” is a quantifiable value calculated from the Wet Immobilization Test described in the application. Wet immobilization is the weight percent of the wetted, swollen core remaining after being shaken by the “diaper shaker,” which is described on pages 16-17 of the application. Tanzer provides no teaching or suggestion of “wet immobilization” when the term is reasonably construed. The Office points to a passage within Tanzer stating that “the absorbent structure of the invention can better maintain the location of the high-absorbency material.” Col. 2, lines 1-3. However, the Office’s conclusion that this phrase alone suggests Applicant’s claimed wet immobilization is unreasonable in light of overview of Tanzer as presented above. Applicant asserts that the teachings of Tanzer would yield in an absorbent article that does not exhibit “wet immobilization” as term is construed in the present application. Tanzer teaches that the attachment system (adhesive 102) releases with the separation force exerted by the high absorbency material (110). When the attachment system releases, the pockets (108) may open thereby releasing (*i.e.*, lack of immobilization) the high absorbency material (110). The high absorbency material (110) of Tanzer may be expelled from the structure when subjected to the diaper shaker.

Further in support of this point, Tanzer provides numerous examples that are stated as exemplifying the invention of Tanzer. Specifically, Examples 29, 36-38, 43-45, 57-58, 61, 74-75, and 77 are described as exemplary of the invention. *See* col. 42, line 9-10; col. 43,

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lines 53-54; and col. 44, lines 50-51. All of these examples have a mode of failure identified as "Delamination, NO tearing." See unnumbered Tables on col. 41-45. Applicant asserts that if the absorbent laminate structure of Tanzer separates (as Tanzer clearly states it does), the high absorbency material is no longer immobilized and may be expelled when subjected to the diaper shaker.

Second, Applicant will address the Office's failure to recognize "wet immobilization" is a results-effective variable. The Office correctly states that a results-effective variable is "a variable which achieves a recognized result." However, the Office provides circular reasoning as support for the determination that "wet immobilization" is a results-effective variable. The Office states, "One of ordinary skill in the art would have recognized that increasing the wet immobilization properties of the absorbent material in a diaper or similar article would increase its resistance to moving around between top and back sheets and would prevent the absorbent from bunching up uncomfortably." However, the phrase "resistance to moving around between top and back sheets" appears to be nothing more than a definition of the term "immobilization". In other words, the Office argues that one of ordinary skill in the art would have recognized that increasing the wet immobilization properties of the absorbent material in a diaper or similar article would increase its "immobilization". Applicant contends that such reasoning does not support the conclusion that "wet immobilization" is a results-effective variable.

However, even assuming *arguendo* that the Office is correct in classifying Applicant's "wet immobilization of more than about 50% according to the Wet Immobilization Test" as an optimizable results-effective variable, Tanzer clearly teaches away from the claimed invention. See MPEP § 2144.05(III) ("A *prima facie* case of obviousness may also be rebutted by showing that the art, in any material respect, teaches away from the claimed invention."). "A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken

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by the applicant . . . [or] if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by the applicant.” *Tec Air, Inc. v. Denso Mfg. Mich., Inc.*, 192 F.3d 1353, 1360 (Fed. Cir. 1999) (citations omitted). As previously discussed above, Tanzer teaches an absorbent laminate having an attachment system (adhesive 102) that exhibits a wet strength that is less than the separating force imparted by the swelling of the high absorbency material when the high absorbency material is exposed to aqueous liquids, such as urine. Col. 14, lines 43-51. When the attachment system releases upon exertion of a separating force imparted by the swelling of the high absorbency material, the pockets (108) open thereby releasing the high absorbency material (110). The teaching of Tanzer is counter to what one of ordinary skill in the art would expect for wet immobilization; namely, the attachment system remaining attached upon exertion of a swelling force. Applicant asserts that one of ordinary skill in the art would not follow the path provided in Tanzer because to do so is contrary to improved wet immobilization.

Furthermore, even assuming *arguendo* that the Office is correct in classifying Applicant's “wet immobilization of more than about 50% according to the Wet Immobilization Test” as an optimizable results-effective variable, the Office fails to appreciate that sufficient evidence exists in the application as to the criticality of wet immobilization. Applicant, within the Background of the present application, has described select existing core structures. One such core structure is described in U.S. Pat. No. 5,411,497 to Tanzer et al. (hereafter referred to as “Tanzer II”) is specifically discussed on page 2, lines 9-21. The deficiency in Tanzer II is the ability to maintain wet immobilization. Given the existing discussion in the application, Applicant asserts that ample evidence exists supporting the criticality of wet immobilization.

Third, Applicant further asserts that the Office cannot reasonably modify Tanzer to provide increased wet immobilization. Case law provides that “[i]f the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed

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modification.” MPEP § 2143.01 (citing *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)). When considering the complete teachings of Tanzer, it is clear that the attachment system is designed to release upon exertion of a swelling force from the wetted high absorbency material. *See* col. 14, lines 57-61 (“In addition, the water-sensitive attachment system is configured to release at an applied load which is less than the load needed to delaminate the water-sensitive attaching means without excessively tearing the material forming either or both of the carrier layers when such layers are wetted.”) Further, the “water-sensitive attachment system is also configured to release at an applied load which is less than the load needed to excessively burst the material forming either or both of the carrier layers when such layers are wetted.” Col. 14, lines 57-62. Improving the wet immobilization would dictate that the attachment system *not* release upon exertion of a swelling force. Such a modification would render the absorbent laminate structure of Tanzer unsatisfactory for its intended purpose (*i.e.*, “the water-sensitive attachment system is configured to release at an applied load which is less than the load needed to delaminate the water-sensitive attaching means without excessively tearing the material forming either or both of the carrier layers when such layers are wetted.”)

With regard to Claims 2, 4-6, and 8-11; these claims are dependent from and contain all the limitations of Claim 1. Tanzer fails to teach each and every limitation of Claim 1. Therefore, Claims 2, 4-6, and 8-11, which include all the limitations of Claim 1, are patentably distinct over Tanzer.

With regard to Claim 3, the Office repeats that rejection from the first Office Action by stating that “Tanzer et al. teach that the thermoplastic material (100) is a hot melt adhesive (Col. 13, lines 1-8).” However, Tanzer teaches that item 100 is the carrier layer. Applicant can find no passage in Tanzer teaching the carrier layer (100) as being a hot melt adhesive. As a result, the Office has failed to establish a *prima facie* case for Claim 3.

With regard to Claims 7 and 12, the Office states:

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[M]ere changes in size alone are not sufficient to patentably distinguish an invention over the prior art.” In *Gardner v. TEC Systems, Inc.* 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device. MPEP § 2144.04.

Applicant traverses the rejection on grounds originally presented in the reply dated March 7, 2006. Claims 7 and 12 are dependent from and contain all the limitations of Claim 1. Tanzer fails to teach each and every limitation of Claim 1. Therefore, Claims 7 and 12, which include all the limitations of Claim 1, are patentably distinct over Tanzer.

Furthermore, the Office cites *Gardner v. TEC Systems, Inc.* in support of the rejection. However, Applicant asserts that *Gardner* is inapplicable to the present application. The *Gardner* decision is grounded upon two prerequisites. First, the only difference between the prior art and the claims is a recitation of relative dimensions of the claimed device. *Gardner*, 725 F.2d 1338, 1345 (Fed. Cir. 1984)(“Vits discloses the invention of the claims in suit except for their dimensional limitations.”). As argued in relation to Claim 1, the differences between Applicant’s invention and Tanzer are more than a mere recitation of dimension. Second, the device having the claimed relative dimensions would not perform differently than the prior art device. Applicant asserts that any limitation on the crotch width may have an adverse impact on an absorbent article. Less width results in less material that can absorb body exudates. Therefore, changing dimension may result in an article that performs differently that disclosed in Tanzer.

Conclusion


This response represents an earnest effort to place the application in proper form and to distinguish the invention as claimed from the cited documents. In light of the above remarks, it is requested that the Examiner reconsider and withdraw the rejection under based on 35 U.S.C. § 103(a). Early and favorable action in the case is respectfully requested.

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Respectfully submitted,

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Date: July 18, 2006
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